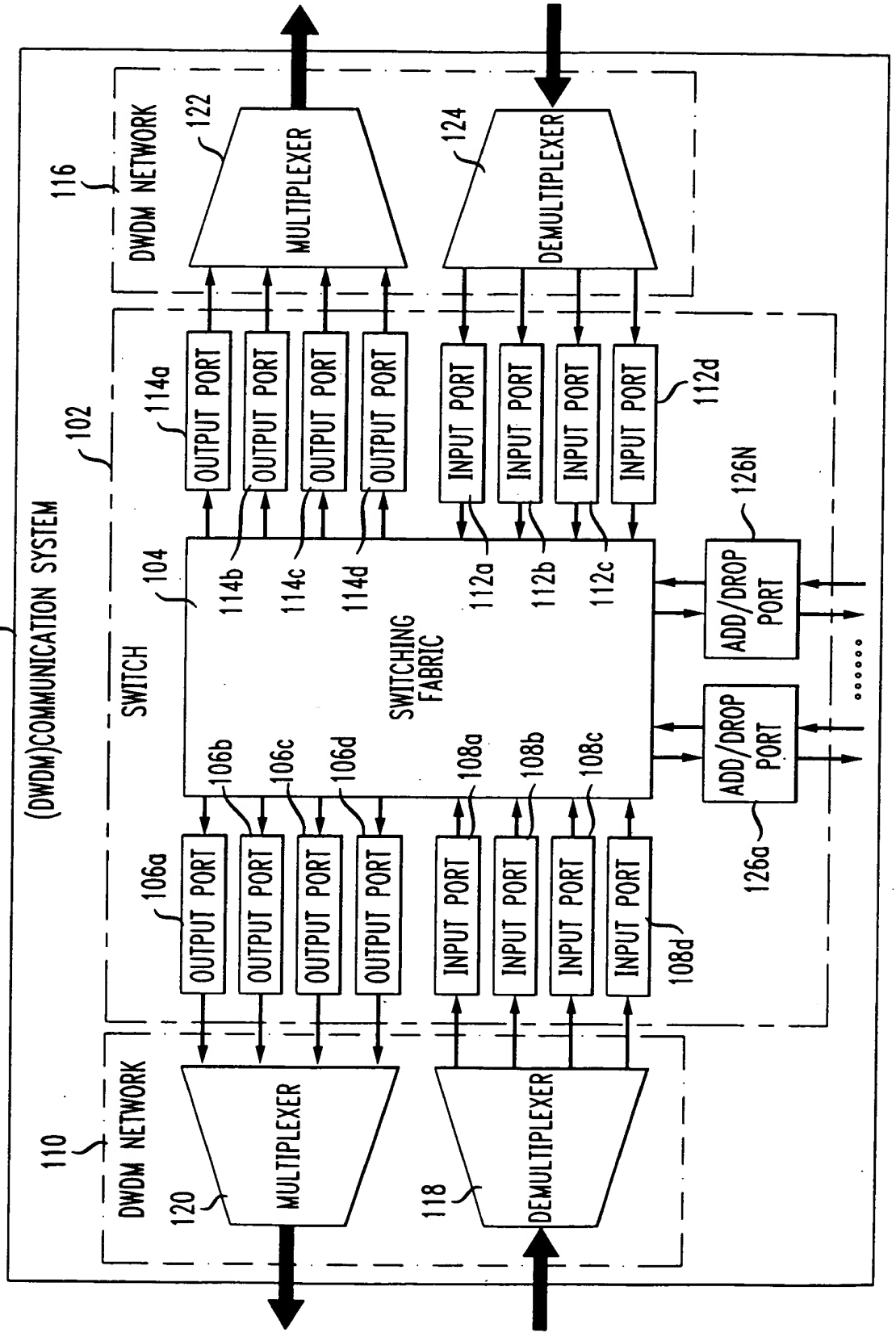
100
(DWDM)COMMUNICATION SYSTEM
102
SWITCH
104
SWITCHING FABRIC
116
DWDM NETWORK
122
MULTIPLEXER
124
DEMULTIPLEXER
110
DWDM NETWORK
120
MULTIPLEXER
118
DEMULTIPLEXER
114a
OUTPUT PORT
114b
OUTPUT PORT
114c
OUTPUT PORT
114d
OUTPUT PORT
112a
INPUT PORT
112b
INPUT PORT
112c
INPUT PORT
112d
INPUT PORT
106a
OUTPUT PORT
106b
OUTPUT PORT
106c
OUTPUT PORT
106d
OUTPUT PORT
108a
INPUT PORT
108b
INPUT PORT
108c
INPUT PORT
108d
INPUT PORT
126N
ADD/DROP PORT
126a
ADD/DROP PORT

FIG. 1

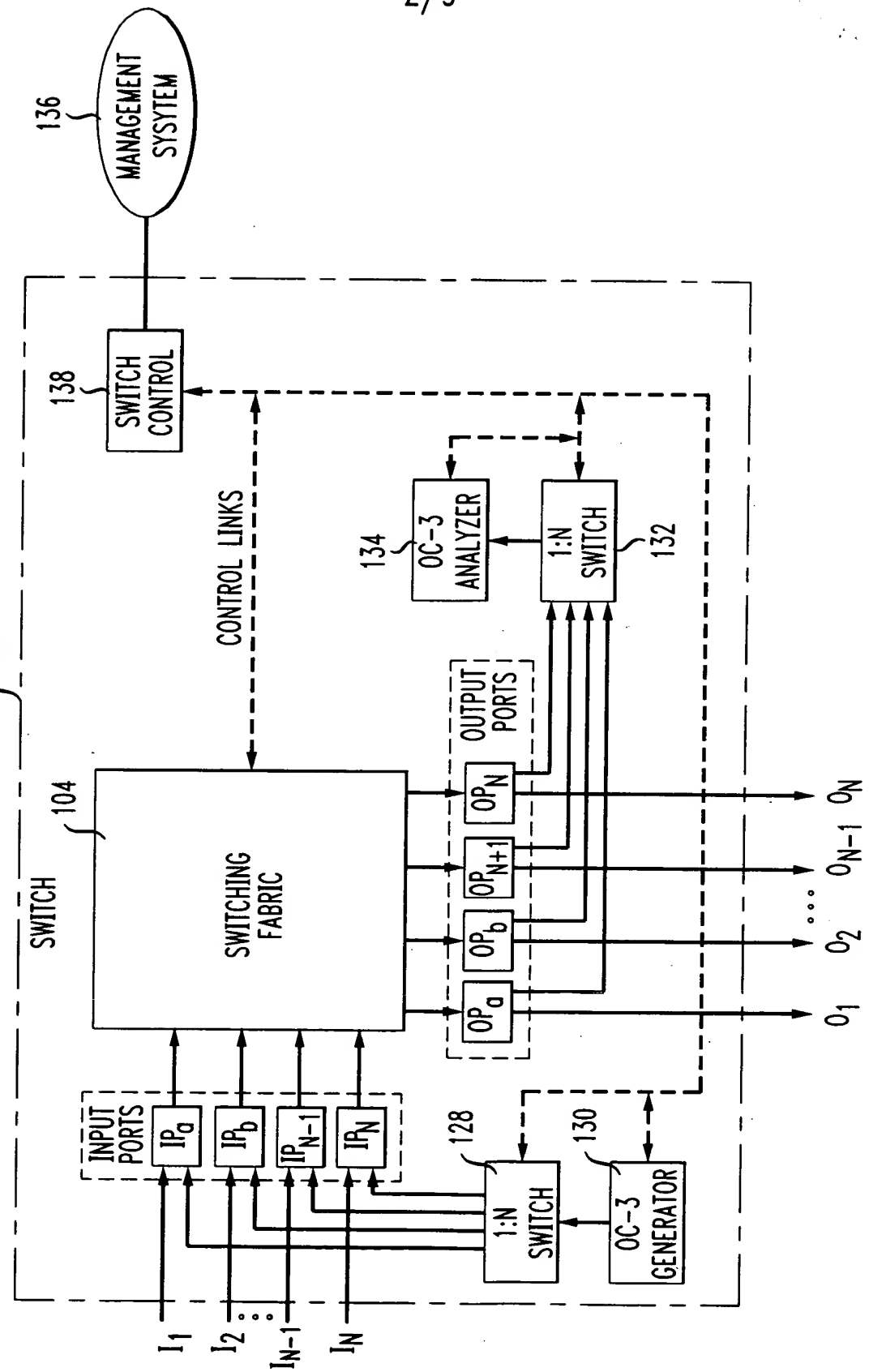
136
MANAGEMENT SYSTEM
138
SWITCH CONTROL
CONTROL LINKS
102
SWITCH
104
SWITCHING FABRIC
134
OC-3 ANALYZER
1:N SWITCH
132
OUTPUT PORTS
OP_N
OP_{N+1}
OP_b
OP_a
O_N
O_{N-1}
O_2
O_1
INPUT PORTS
IP_a
IP_b
IP_{N-1}
IP_N
128
1:N SWITCH
130
OC-3 GENERATOR
I_1
I_2
I_{N-1}
I_N

FIG. 2

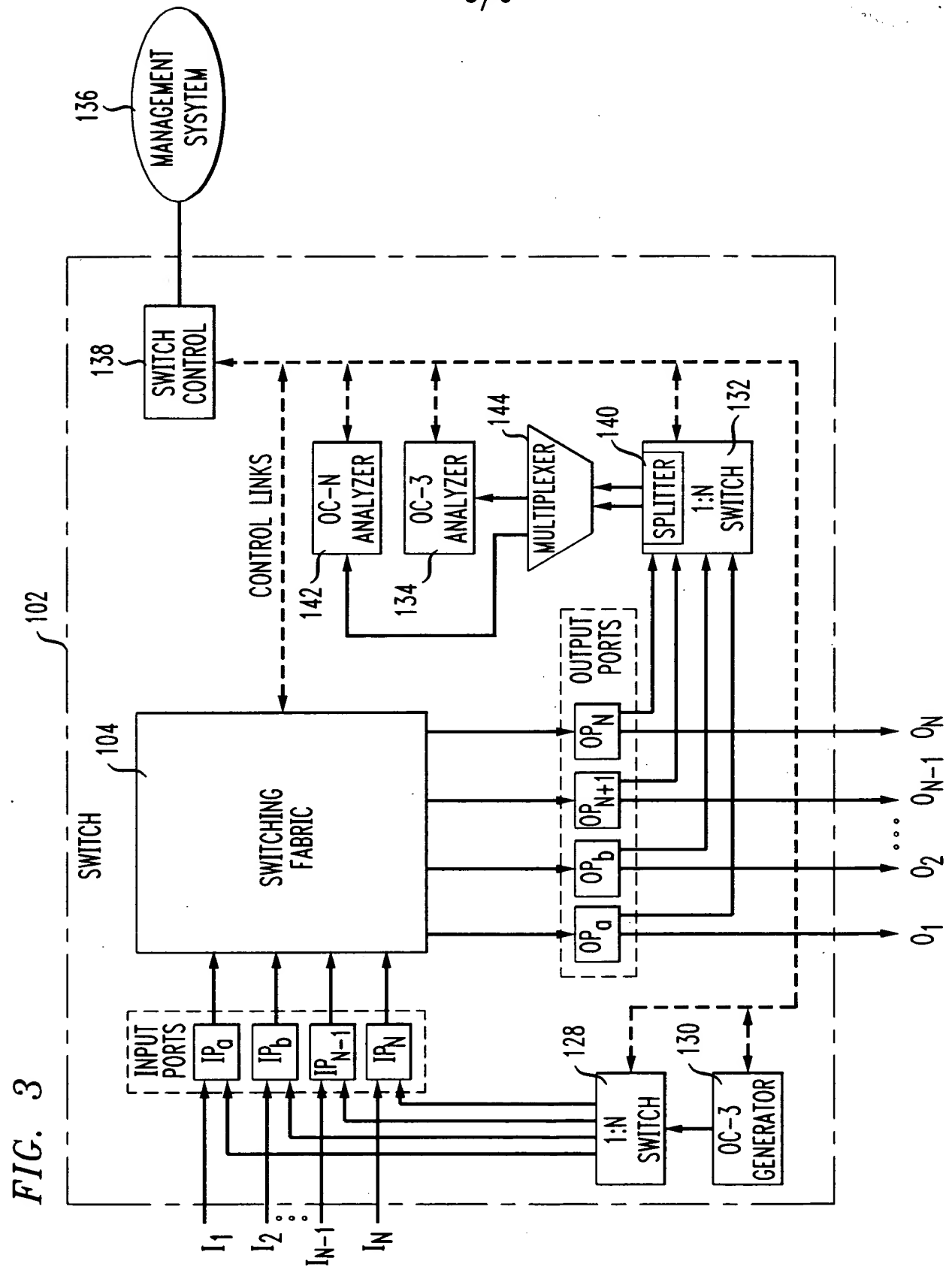
136
MANAGEMENT SYSTEM
138
SWITCH CONTROL
102
CONTROL LINKS
142
OC-N ANALYZER
134
OC-3 ANALYZER
144
MULTIPLEXER
140
SPLITTER
132
1:N SWITCH
OUTPUT PORTS
104
SWITCH
SWITCHING FABRIC
INPUT PORTS
128
1:N SWITCH
130
OC-3 GENERATOR
I_1
I_2
I_{N-1}
I_N
O_1
O_2
O_{N-1}
O_N

FIG. 3

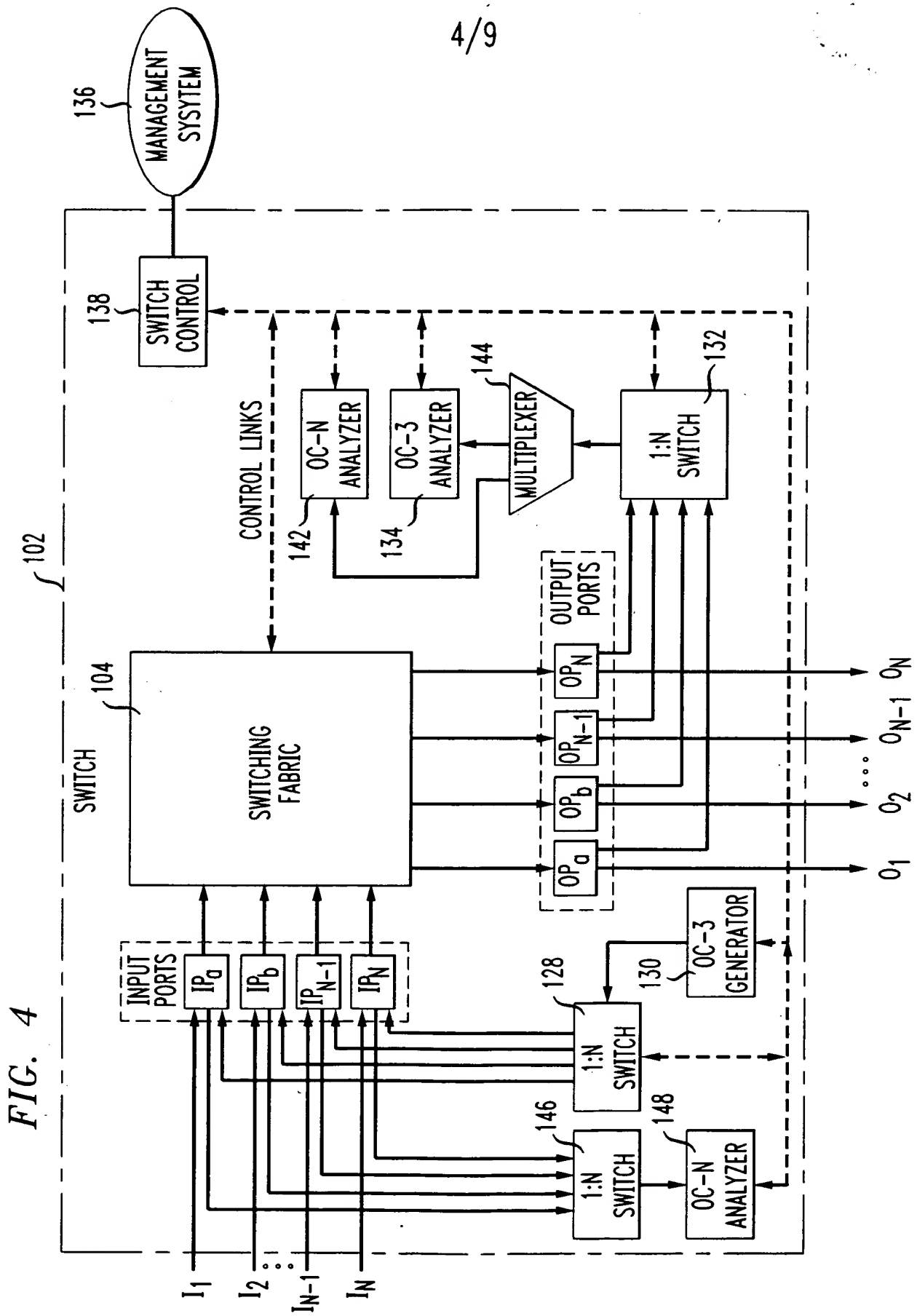

FIG. 4

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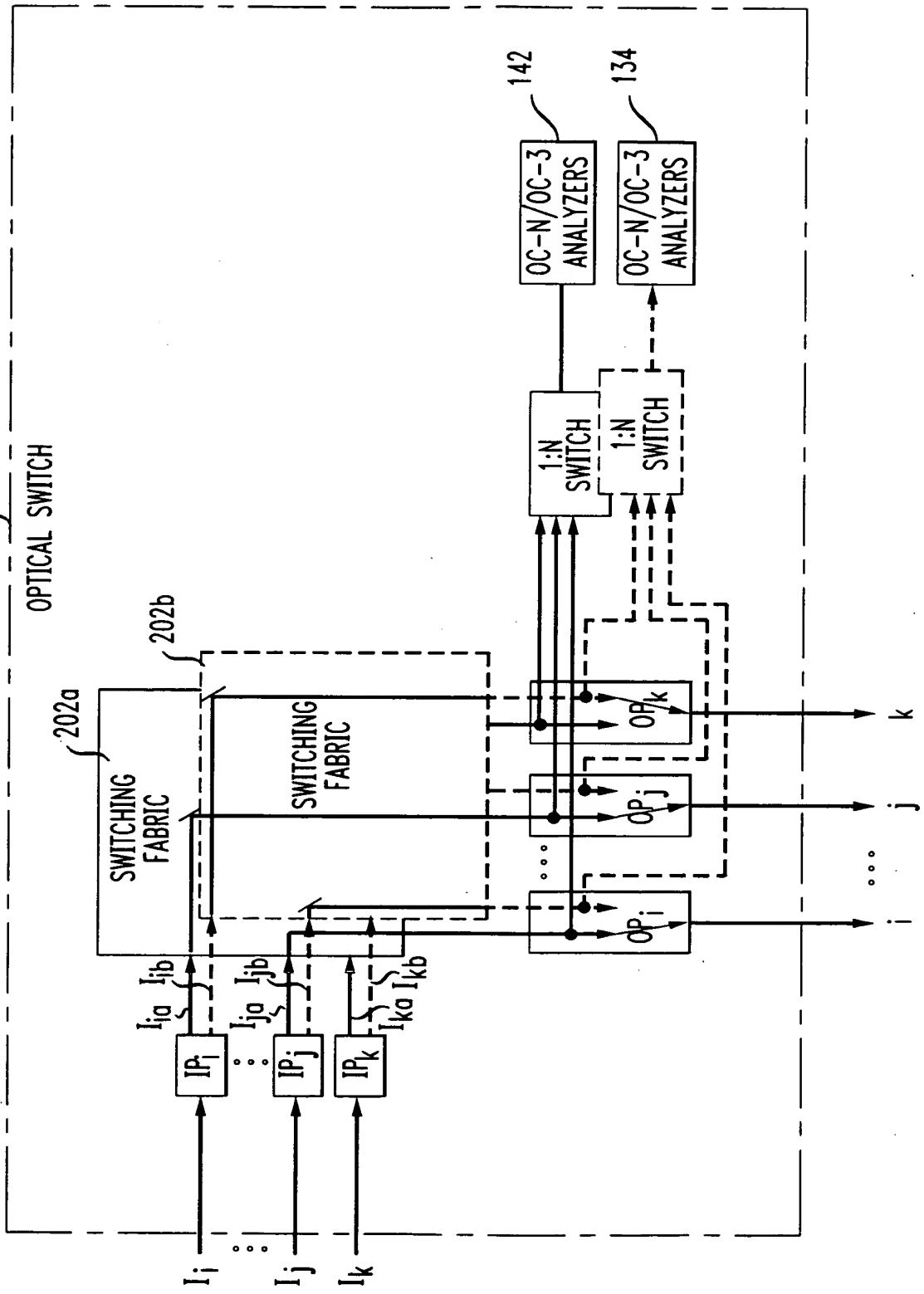
200
OPTICAL SWITCH
142
134
OC-N/OC-3 ANALYZERS
OC-N/OC-3 ANALYZERS
1:N SWITCH
1:N SWITCH
202b
202a
SWITCHING FABRIC
SWITCHING FABRIC
OP_k
OP_j
OP_i
k
j
i
I_ia I_ib
I_ja I_jb
I_ka I_kb
IP_i
IP_j
IP_k
I_i
I_j
I_k

FIG. 5

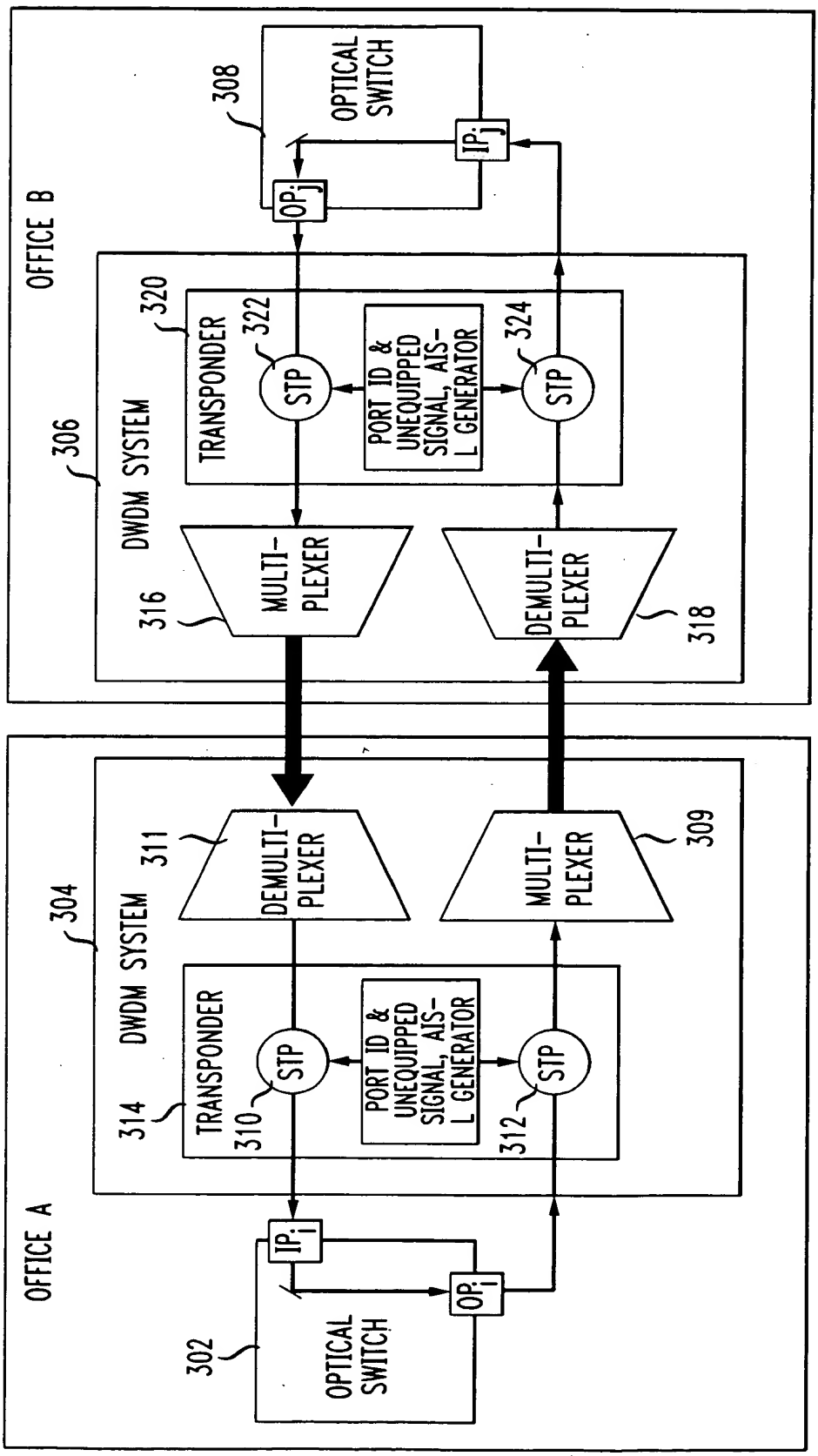
300
OFFICE A
OFFICE B
OPTICAL SWITCH
302
308
IP$_i$
OP$_i$
IP$_j$
OP$_j$
DWDM SYSTEM
304
306
TRANSPONDER
310
314
320
322
STP
PORT ID & UNEQUIPPED SIGNAL, AIS-L GENERATOR
312
324
DEMULTI-PLEXER
311
MULTI-PLEXER
316
309
318

FIG. 6

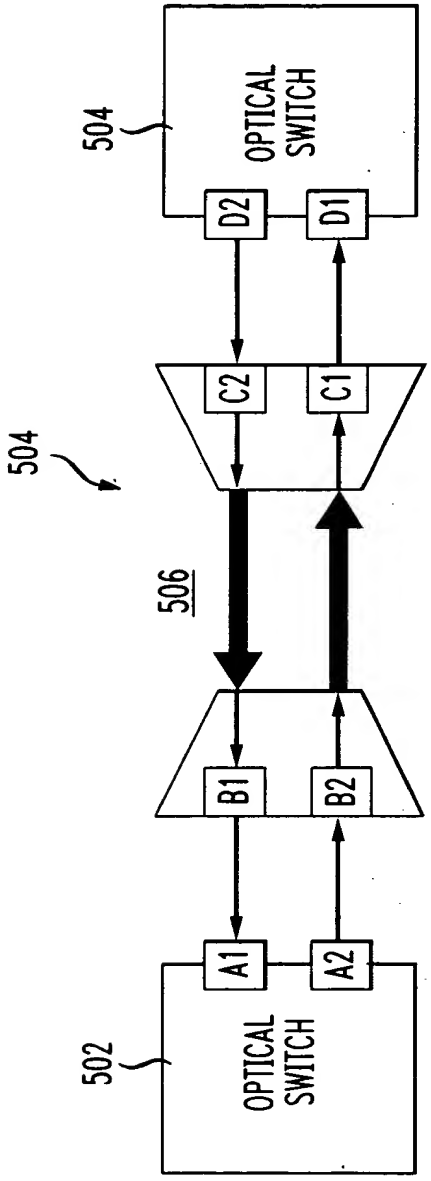

FIG. 7

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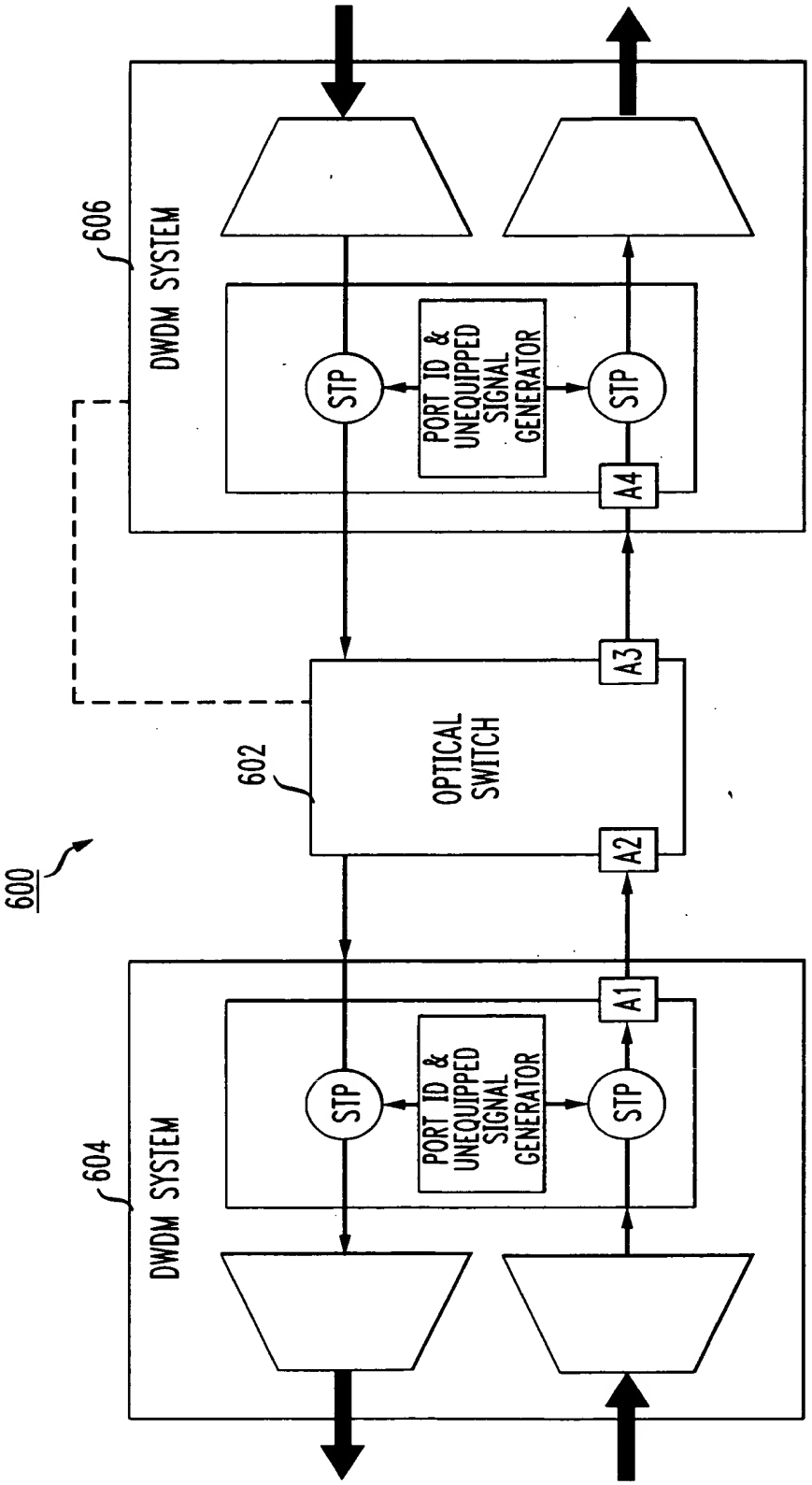
600
602
OPTICAL SWITCH
604
DWDM SYSTEM
606
DWDM SYSTEM
STP
PORT ID & UNEQUIPPED SIGNAL GENERATOR
STP
A1
A2
A3
A4

FIG. 8

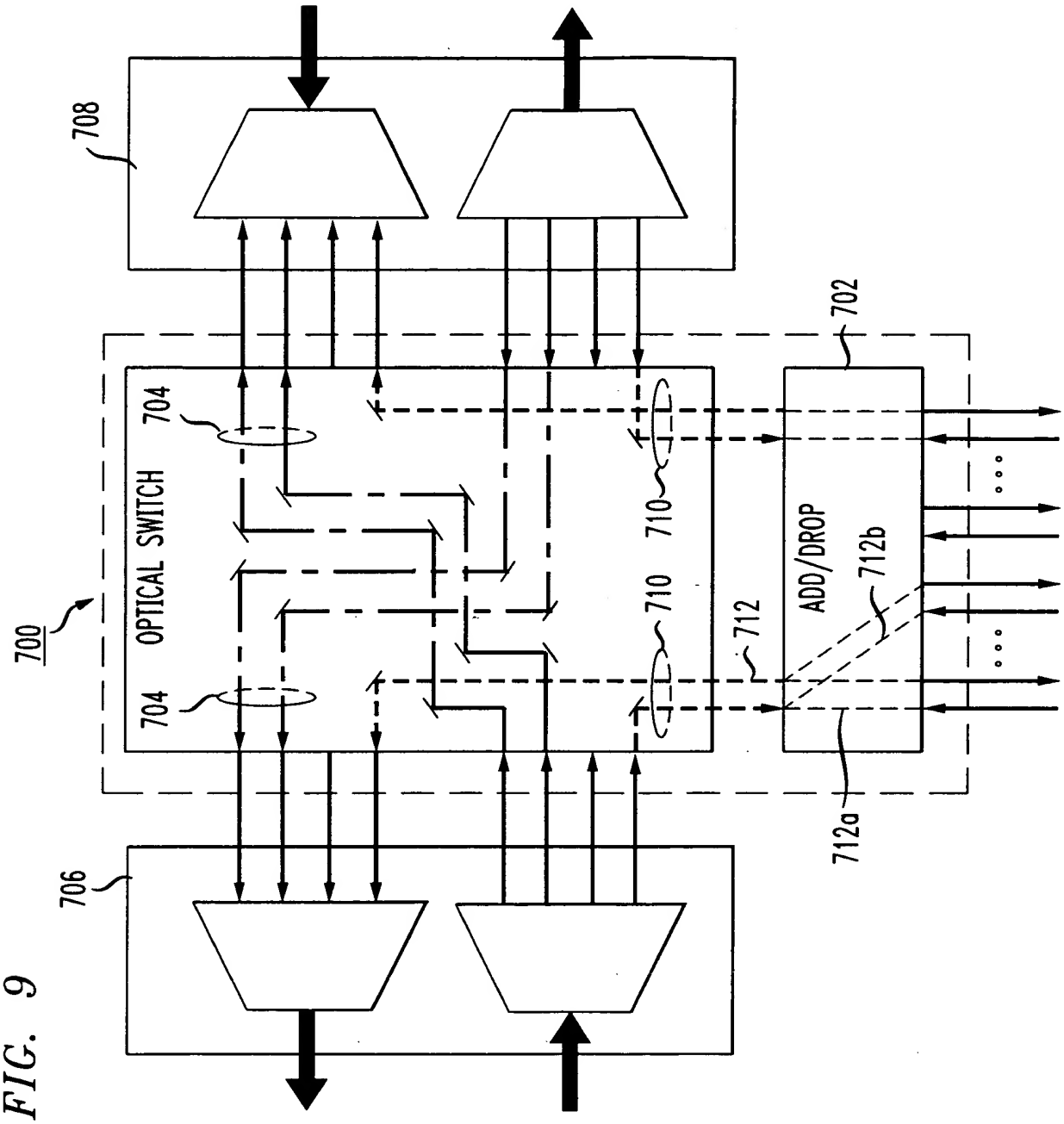
708
702
704
OPTICAL SWITCH
704
710
710
712
ADD/DROP
712b
712a
700
706

FIG. 9